

AR15

Willroy
Mines Limited

Annual Report
1978



OFFICERS

P. A. Allen

President

J. C. L. Allen

Vice-President

R. C. Stanley, Jr.

Vice-President

E. J. Wade

Vice-President,

Engineering and Administration

H. E. Rutetzki

Vice-President and General Manager

D. G. Sheehan

Vice-President, Exploration

Ian T. H. Hamilton

Secretary and General Counsel

DIRECTORS

P. A. Allen

J. C. L. Allen

Ian T. H. Hamilton

R. C. Stanley, Jr.

D. C. Webster

TRANSFER AGENTS

Canada Permanent Trust Company

Toronto, Ontario

AUDITORS

Thorne Riddell & Co.

Toronto, Ontario

HEAD OFFICE

Suite 1900, 101 Richmond Street West,

Toronto, Ontario M5H 1T1

Tel.: (416) 868-1300

OPERATIONS

Macassa Division

Kirkland Lake, Ontario P2N 3J7

Tel.: (705) 567-5208

Milton Aggregates Division

Milton, Ontario L9T 2Y3

Tel.: (416) 456-0306

Oil & Gas Division

1050 Elveden House

Calgary, Alberta T2P 0Z3

Tel.: (403) 262-2291

PRESIDENT'S REPORT

Consolidated net income for 1978 was \$1,682,611 or 21¢ per share up from \$1,276,755 or 16¢ per share in 1977. The increase can be attributed to higher gold prices received for Willroy's Macassa gold mine. Working capital increased from \$15,900,218 to \$16,926,403 after making allowance for an expenditure of \$3,001,458 on oil and gas exploration in Canada and the U.S.A. and an expenditure of \$734,518 on fixed assets. The value of Willroy's assets now total \$30.98 million up from \$28.22 million at the end of 1977.

During 1978 the Company significantly increased its planned expenditure in oil and gas exploration in Alberta, British Columbia, Oklahoma and Texas as a result of opportunities which became available as the year progressed. The oil and gas exploration is managed by Mr. J. Downing at Willroy's office in Calgary. A detailed summary is included later in this report.

A program at the Macassa Division to improve operating efficiencies and further expand underground exploration and development programs continued during 1978. This program resulted in a decrease in operating costs in spite of an 8.8% increase in ore tonnage milled and a 14.0% increase in development footage. As well there was a 126.8% increase in proven ore reserves, albeit at a slightly lower grade. (There was a 99.6% increase in the ounces of gold available in proven ore reserves.) Probable ore reserves also rose by a small increment of 1.1% (a 2.2% decrease in available gold in probable ore reserves). Late in 1978 a minor mill modification was undertaken which is expected to yield a 1% to 2% increase in mill recovery.

The Company follows a policy of contracting to sell a portion of future gold production through a Canadian chartered bank. This policy has the effect of ensuring adequate levels of profitability which permit budgeting for long range exploration, development and capital improvement programs.

Severe price competition in the Toronto-centred rock aggregate industry continued to affect operations at the Company's Milton Aggregates Division near the town of Milton, Ontario. During 1978 a new 3 year contract was signed with the United Cement, Gypsum and Lime Workers Union. Independent truckers hauling crushed rock to various construction jobs have applied for certification with the same union.

Most of the houses at Manitouwadge, owned by Willroy's closed Manitouwadge Division, were sold during 1978 as market conditions permitted. The Company still owns 44 apartment units and houses which are all rented although controls under Ontario's Rent Review legislation have inhibited the rate of return on these investments. Environmental rehabilitation continued during 1978 following a program that has been accepted by the Ontario Ministry of the Environment.

Willroy Mines has contributed 21.05% or \$3.11 million of \$14.77 million expended by Long Lac Mineral Exploration since its incorporation in 1967 and is entitled to an equivalent share in the distribution of any future Lac Mineral earnings. A separate report on the activities of Lac Mineral is included with this report.

On behalf of the Directors of the Company, it is my pleasure to extend our gratitude to the staff and employees of Willroy for their conscientious and enthusiastic contribution.

March 12, 1979

On behalf of the Board of Directors

P. A. ALLEN
President

REPORT ON OPERATIONS

Macassa Division

The Macassa gold mine, located in Kirkland Lake, Ontario, is operated by Willroy Mines Limited on its own property and includes mining on adjacent properties under royalty agreements. Production levels increased further during 1978 at a slightly lower grade. Development footage was increased to 9,610 feet up from 8,427 feet in 1977 and 4,851 feet in 1976.

	1978	1977	% Change
Tons Milled.....	111,416	102,437	+ 8.8%
Tons Per Calendar Day	305	280	+ 8.9%
Ounces Produced—Gold.....	54,388	55,674	- 2.3%
—Silver	10,165	8,628	+ 17.8%
Ounces Gold Recovered Per Ton.....	0.488	0.542	- 10.1%
Mill Recovery	95.79%	96.33%	- 0.6%
Gross Revenue.....	\$11,453,165	\$8,947,438	+ 28.0%
Average Price Per Ounce			
—Gold.....	\$ 209.43	\$ 159.79	+ 31.1%
—Silver	\$ 6.17	\$ 4.96	+ 24.4%
Total Operating Costs.....	\$ 8,981,841	\$7,767,293	+ 15.6%
Operating Cost Per Ounce Of Gold	\$ 165.14	\$ 139.51	+ 18.4%
Operating Profit.....	\$ 2,463,528	\$1,180,145	+108.8%
Operating Profit Per Ounce Of Gold	\$ 45.30	\$ 21.20	+113.7%
Fixed Asset Expenditures	\$ 255,080	\$ 97,232	+162.3%

Ore Reserves

Ore reserves increased substantially during 1978 due to increased development and exploration expenditures. A significant portion of the ore reserves are found on property mined under lease agreements with other owners or part-owners; these areas provide approximately 50% of ore sent to the mill.

	1978		1977	
	Short Tons	Oz. Gold/Ton	Short Tons	Oz. Gold/Ton
Proven Reserves—Broken	9,275	0.454	9,169	0.562
—Unbroken	224,800	0.517	94,060	0.586
—Total	234,075	0.514	103,229	0.584
Probable.....	176,950	0.507	175,065	0.524

Note: Proven and probable reserves should not be added together.

Oil and Gas Division

Through a joint venture agreement with Sunburst Resources Limited in Calgary, Alberta, Willroy funds an extensive oil and gas exploration program in Alberta and British Columbia in Canada and in Oklahoma and Texas in the U.S.A. During 1978 Willroy spent \$3,001,458 on land acquisition and drilling as a partner with other oil and gas exploration companies. It is expected that this level of expenditure will be exceeded in 1979 as will the 1978 oil and gas income of \$176,778.

During 1978 Willroy's oil and gas division participated in drilling 25 exploratory and development wells in Canada and the U.S.A. Seven wells were drilled in Alberta, 3 in British Columbia, 6 in Texas and another 8 were located in Oklahoma; of these 14 (2.52 net wells to Willroy) were completed as producing or potential gas wells, 5 (0.65 net wells) were producing oil wells and 6 (1.67 net wells) were dry holes.

The two most significant discoveries were in Wilder, B.C. and in Picton, Texas. In the Wilder Prospect, one well was completed as a potential gas well with gross saleable reserves of 13 bcf per 640 acres, of which Willroy's share is 3.1 bcf. The development well is currently drilling and if successful, will lead to additional wells which in total will add substantial amounts to the Company's income.

In the Picton Prospect, Hopkins County, Texas, the Company participated in drilling a successful wildcat well, which had a gross gas pay section of over 140 feet. The well has a calculated open flow of 19 mcf per day and the gas contains a high condensate content. A follow-up well will be drilled in May which may lead to other development wells and therefore this area could also add significant amounts of income.

Willroy is currently receiving income from 4 oil wells, a unitized gas field in Alberta and 3 gas wells in Oklahoma. One other area of Texas, the Three Circle Ranch Prospect, could also add significant amounts of income.

Willroy's oil and gas reserves as estimated by company personnel are as follows:

	Proven	Probable
Natural Gas	4,500 million cubic feet	5,000 million cubic feet
Crude Oil	122,000 barrels	106,000 barrels

Gas wells in Alberta, British Columbia and Texas are shut in, but should be on production in 1980 or 1981. Some of the oil and gas pools in British Columbia and Texas will receive additional drilling in 1979.

TAXATION AND GOVERNMENT TRANSFERS

In the course of its day-to-day business, the Company pays considerable money to governments at all levels.

	1978	1977
Federal income tax.....	\$ 415,000	\$ 79,664
Provincial income tax	160,000	51,212
Capital tax.....	20,000	16,000
Provincial mining tax.....	475,000	280,000
Municipal—property.....	82,000	161,000
—business.....	40,000	66,000
Provincial sales tax.....	51,000	46,000
Workmen's Compensation.....	602,600	616,000
TOTAL	<u>\$1,845,600</u>	<u>\$1,315,876</u>

CONSOLIDATED BALANCE SHEET

AS AT DECEMBER 31, 1978

	1978	1977
Assets		
CURRENT ASSETS		
Cash and short term deposits.....	\$13,309,215	\$12,165,413
Bullion on hand, at net realized value.....	1,090,852	1,113,153
Marketable securities, at cost less allowance for decline in market value in 1978 of \$360,000; 1977, \$990,000 (quoted market value 1978, \$3,081,000; 1977, \$2,795,000)	3,081,777	2,795,259
Income taxes recoverable.....		212,674
Accounts, accrued interest and other receivables	1,041,379	813,793
Receivable from affiliated companies.....	195,545	80,045
Supplies and other assets, at cost less amounts written off	921,243	957,292
	<u>19,640,011</u>	<u>18,137,629</u>
OTHER INVESTMENTS (note 2).....	2,003,398	2,455,230
FIXED ASSETS		
Mineral and other properties (note 3)	2,731,038	2,970,872
Producing petroleum and natural gas leases and rights including development thereon	2,245,406	1,908,900
Plant and equipment	<u>11,853,892</u>	<u>12,728,524</u>
	16,830,336	17,608,296
Less accumulated depreciation and depletion	<u>9,695,498</u>	<u>10,176,284</u>
	7,134,838	7,432,012
OTHER ASSETS		
Exploration and development expenditures deferred	118,757	161,101
Non-producing petroleum and natural gas leases and rights including development thereon	2,082,771	
Other items.....		29,995
	<u>2,201,528</u>	<u>191,096</u>
	<u>\$30,979,775</u>	<u>\$28,215,967</u>
Liabilities		
CURRENT LIABILITIES		
Accounts payable and accrued liabilities.....	\$ 1,592,241	\$ 1,945,037
Payable to affiliated companies.....	28,300	
Income taxes payable	689,094	21,656
Mining taxes payable	<u>403,973</u>	<u>270,718</u>
	2,713,608	2,237,411
DEFERRED INCOME TAXES	<u>1,360,000</u>	<u>755,000</u>
SHAREHOLDERS' EQUITY		
CAPITAL STOCK		
Authorized—10,000,000 shares without par value		
Issued —7,869,342 shares	7,272,380	7,272,380
CONTRIBUTED SURPLUS	847,832	847,832
RETAINED EARNINGS.....	<u>18,785,955</u>	<u>17,103,344</u>
Contingent liabilities (note 5)	<u>26,906,167</u>	<u>25,223,556</u>
	<u>\$30,979,775</u>	<u>\$28,215,967</u>
Approved by the Board		
R. C. STANLEY, JR.		
Director		
I. T. H. HAMILTON		
Director		

CONSOLIDATED STATEMENT OF INCOME AND RETAINED EARNINGS

YEAR ENDED DECEMBER 31, 1978

	1978	1977
Production revenue.....	\$13,084,893	\$12,269,013
Operating expenses		
Production expenses	9,684,958	10,201,613
Marketing expenses	219,255	299,002
Administrative and corporate expenses	665,347	375,180
Mining taxes.....	413,255	265,292
	<u>10,982,815</u>	<u>11,141,087</u>
Operating profit before the undernoted items	2,102,078	1,127,926
Other expenses		
Depreciation and depletion.....	647,273	459,367
Mining properties written off.....	320,228	
Outside exploration	606,129	307,189
	<u>1,573,630</u>	<u>766,556</u>
Income before the undernoted items.....	528,448	361,370
Other income		
Investment income.....	1,216,116	1,114,261
Sundry	55,349	62,864
Loss on sale of securities	(76,563)	(130,448)
Securities written down	(5,967)	(297,938)
Reduction in allowance for decline in market value of marketable securities	630,000	710,000
	<u>1,818,935</u>	<u>1,458,739</u>
Income before income taxes and extraordinary items.....	2,347,383	1,820,109
Income taxes		
Current	599,267	130,876
Deferred.....	445,000	510,000
	<u>1,044,267</u>	<u>640,876</u>
Income before extraordinary items	1,303,116	1,179,233
Extraordinary items		
Gain on sale of fixed assets net of applicable income taxes of \$195,000 in 1978	281,784	283,120
Shutdown expenses net of deferred income taxes of \$110,000.....		(181,803)
Recovery of provision (provision) for litigation (note 4)	97,711	(3,795)
	<u>379,495</u>	<u>97,522</u>
NET INCOME	1,682,611	1,276,755
RETAINED EARNINGS AT BEGINNING OF YEAR	17,103,344	15,826,589
RETAINED EARNINGS AT END OF YEAR	<u>\$18,785,955</u>	<u>\$17,103,344</u>
EARNINGS PER SHARE		
Income before extraordinary items.....	17¢	15¢
Net income	21¢	16¢

CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION

YEAR ENDED DECEMBER 31, 1978

	1978	1977
WORKING CAPITAL DERIVED FROM		
Operations	\$ 2,669,855	\$ 2,361,933
Proceeds on sale of shares in other companies	288,628	5,649
Issue of capital stock		263,920
Proceeds on sale of fixed assets	582,244	526,618
Advance to affiliated company converted to shares.....		254,836
Reduction in advances to affiliated company	162,692	
Recovery of provision for litigation	97,711	
	<u>3,801,130</u>	<u>3,412,956</u>
WORKING CAPITAL APPLIED TO		
Purchase of fixed assets	734,518	2,622,937
Exploration and development expenditures deferred (recovery) ..	(42,344)	227,067
Expenditures on non-producing petroleum and natural gas leases and rights including development thereon.....	2,082,771	
Investment in subsidiary company (less working capital acquired of \$41,052)		708,948
Investment in other companies		9,673
Purchase of shares in affiliated company		254,836
Provision for litigation.....		3,795
Advances to affiliated company		642,404
	<u>2,774,945</u>	<u>4,469,660</u>
INCREASE (DECREASE) IN WORKING CAPITAL.....	1,026,185	(1,056,704)
WORKING CAPITAL AT BEGINNING OF YEAR.....	15,900,218	16,956,922
WORKING CAPITAL AT END OF YEAR.....	<u>\$16,926,403</u>	<u>\$15,900,218</u>

AUDITORS' REPORT

To the Shareholders of
Willroy Mines Limited

We have examined the consolidated balance sheet of Willroy Mines Limited as at December 31, 1978 and the consolidated statements of income and retained earnings and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the company as at December 31, 1978 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Toronto, Canada
February 2, 1979
(February 21, 1979 as to note 6)

THORNE RIDDELL & CO.,
Chartered Accountants

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 1978

1. ACCOUNTING POLICIES

(a) *Basis of consolidation*

The accounts of the 100% owned subsidiary, Tegren Goldfields Limited, have been consolidated with those of its parent company.

(b) *Marketable securities*

Marketable securities are recorded at cost less an allowance for decline in market value which is adjusted annually at each year end.

(c) *Other investments*

Investments in listed affiliated companies are recorded at cost. Investments in other affiliated companies are recorded at cost reduced by any permanent impairment.

Other investments are those which the company considers to be long term in nature. They are recorded at cost reduced by any permanent impairment.

(d) *Fixed assets*

(i) Mineral and other properties:

Mineral properties are recorded at cost. When the properties are considered to be permanently uneconomical they are written off.

(ii) Plant and equipment:

All plant and equipment are stated at cost. Depreciation is provided on both the straight-line and declining balance bases at rates from 10% to 25% annually.

(iii) Petroleum and natural gas leases and rights:

The company capitalizes the acquisition and exploration costs of both producing and non-producing properties and charges such costs to income if the property is subsequently surrendered. The costs of drilling productive wells are capitalized and the costs of non-productive wells are charged to income when determined to be dry. The costs of producing properties including exploration and development thereon are amortized using the unit of production method based upon estimated quantities of oil and gas as determined by the company's engineers.

(e) *Exploration and development expenditures*

Exploration and development expenditures related to producing mining operations are written off as incurred. Stripping expenditures related to the crushed rock operations are deferred and written off based on current production related to reserves. Exploration and development expenditures are deferred on certain specific projects conducted by a joint exploration company of which Willroy Mines Limited is a participant. Willroy's portion of the expenditures on these projects will be deferred until such time as they commence production or are considered to be permanently uneconomical. When a project is considered to be permanently uneconomical, the related deferred expenditures are written off. All other outside exploration is written off as incurred.

2. OTHER INVESTMENTS

	1978	1977
Affiliated companies		
Listed shares (quoted market value 1978, \$173,000; 1977, \$143,000).....	\$ 131,661	\$ 131,661
Other shares.....	279,837	279,837
Advances.....	479,712	642,404
Other shares		
Listed (quoted market value 1978, \$519,000; 1977, \$711,000).....	715,835	929,336
Other.....	396,353	471,992
	<u>\$2,003,398</u>	<u>\$2,455,230</u>

3. MINERAL AND OTHER PROPERTIES

The company granted to another mining company the right to do exploration and development work on its mining claims in the Renabie area and to bring the property into commercial production. The cash generated from production will be applied against production costs and repayment of costs incurred by the other mining company on the property. After the repayment of these expenditures Willroy will get 50% of the cash flow as defined in the agreement.

Although the agreement is still in effect, the optionee ceased operations on the property in 1976. Negotiations are presently being carried out which may change the company's interest.

4. LITIGATION

The company was successful in its appeal in the litigation with Milton Brick Co. Limited resulting in a recovery of the provision of \$97,711.

5. CONTINGENT LIABILITIES

- (a) Willroy, as a participant in a joint exploration company, has made the following guarantees:
- (i) The joint exploration company and one of its subsidiaries have entered into contracts for future sales of gold. In support thereof, Willroy has guaranteed the production of the two companies to a maximum of 56,000 ounces of gold.
 - (ii) Willroy is contingently liable under a completion and deficiency guarantee it has made on a bank loan of the joint exploration company. At December 31, 1978, the guarantee amounted to \$842,120. Subsequent to December 31, 1978, the joint exploration company's loan was increased and Willroy guaranteed an additional amount of \$631,590.
- In addition, Willroy is contingently liable under a deficiency undertaking to the extent of \$2,450,000 supported by the hypothecation of short term deposits.
- (b) Fixed assets totalling approximately \$250,000 were acquired during the period the management agreement with Upper Canada Resources Limited was in effect. Under the terms of this agreement, if, as and when these assets are sold, one-half of the proceeds of disposal are to be distributed to Upper Canada Resources Limited.
- (c) Willroy has been included as a defendant in an action related to Rengold Mines and Resources Ltd. under the Mechanic's Lien Act. Total liens filed amount to \$180,533 plus interest and costs. Management is actively engaged in defending against the claim and does not consider it has merit and therefore no provision has been made in the accounts.

6. COMMITMENT

At February 21, 1979, the company had contracted to sell 36,500 ounces of future gold production for \$9,700,000. Company management expects that the above commitment will be covered from 1979 production.

7. REMUNERATION OF DIRECTORS AND SENIOR OFFICERS

The remuneration for the year of directors and senior officers as defined by The Business Corporations Act was as follows:

	1978	1977
Directors and senior officers	\$ 109,516	\$ 60,441
Mine employees	146,817	163,424
	<u>\$ 256,333</u>	<u>\$ 223,865</u>

CONSOLIDATED SUMMARY OF FINANCIAL INFORMATION

YEAR ENDED DECEMBER 31, 1978

	1978			1977
	Mining	Oil and Gas	Total	Total Mining
Production revenue	\$12,908,115	\$ 176,778	\$13,084,893	\$12,269,013
Operating expenses	10,853,841	128,974	10,982,815	11,141,087
Other expenses	962,902	610,728	1,573,630	766,556
	<u>11,816,743</u>	<u>739,702</u>	<u>12,556,445</u>	<u>11,907,643</u>
Income (loss) before undernoted items per financial statement	<u>\$ 1,091,372</u>	<u>\$(562,924)</u>	<u>\$ 528,448</u>	<u>\$ 361,370</u>

SHAREHOLDERS

	1978	1977
No. of shares outstanding	7,869,341	7,704,392
% of shares held —Canadian	92.38%	91.96%
—U.S.A.	7.46%	7.93%
—Other	0.16%	0.18%
No. of shareholders—Canadian	2,059	1,973
—U.S.A.	1,579	1,517
—Other	34	34
Total.....	3,672	3,524

5 YEAR COMPARISON SUMMARY OF RESULTS (Unaudited)
THOUSANDS OF DOLLARS

	1974	1975	1976	1977	1978
Production Revenue	16,658	15,831	14,238	12,269	13,085
Operating Profit.....	3,254	1,836	690	1,128	2,102
Investment Income.....	874	795	966	1,114	1,216
Depreciation and Depletion.....	525	561	404	459	647
Exploration, Development and Advances to Long Lac Mineral	199	373	373	1,008	480
Net Income	(660)	2,803	1,497	1,277	1,683
Net Income Per Share.....	(0.09)	0.36	0.19	0.16	0.21
Dividends.....	—	577	—	—	—
Dividends Per Share	—	0.075	—	—	—
Fixed Assets (net of depreciation).....	5,183	4,955	4,676	7,432	7,135
Working Capital	13,319	15,588	16,957	15,900	16,926
Retained Earnings	12,103	14,330	15,827	17,103	18,786
Total Assets.....	22,998	24,744	26,108	28,216	30,980

THE LAC GROUP OF COMPANIES, 31 DECEMBER, 1978



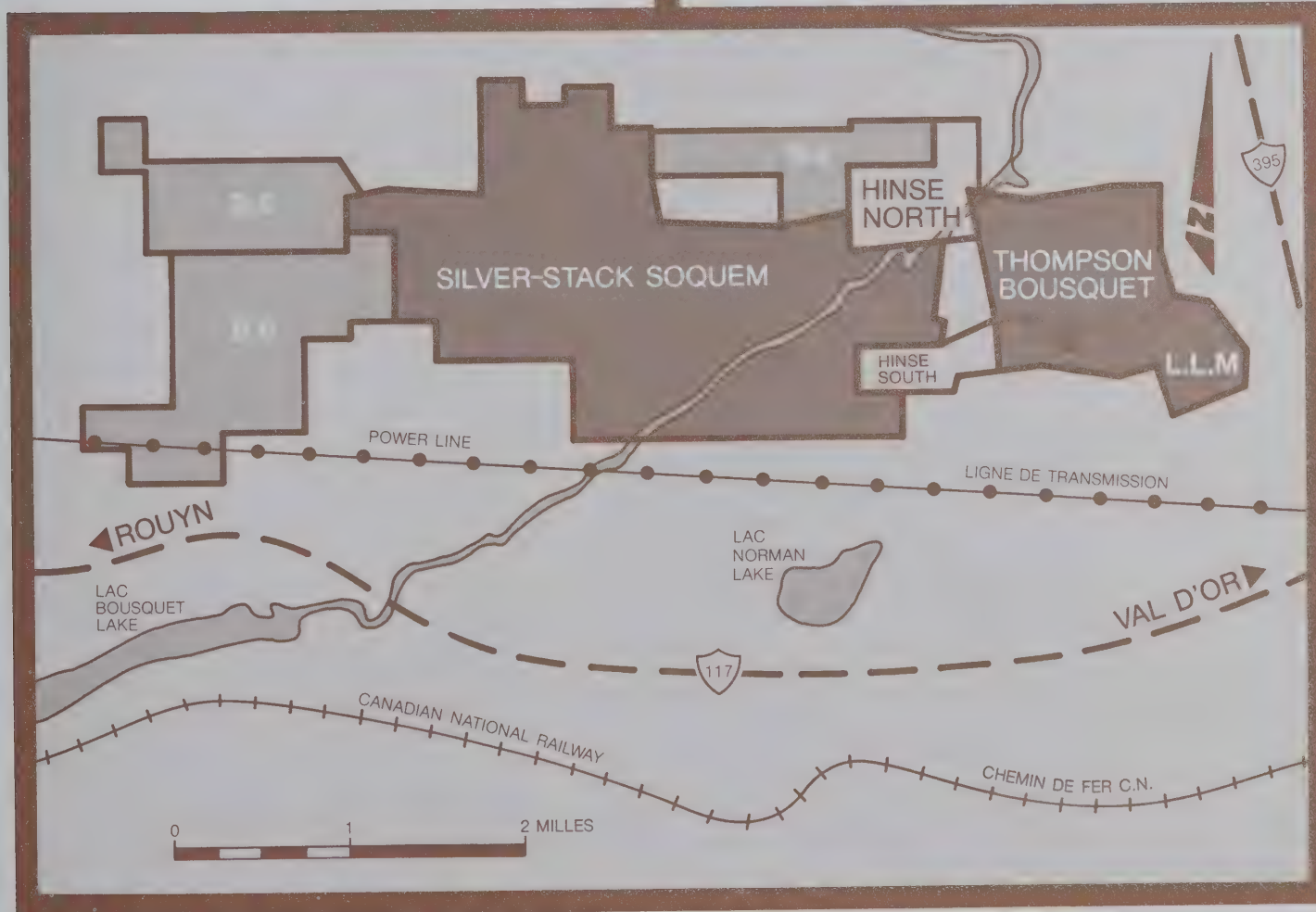
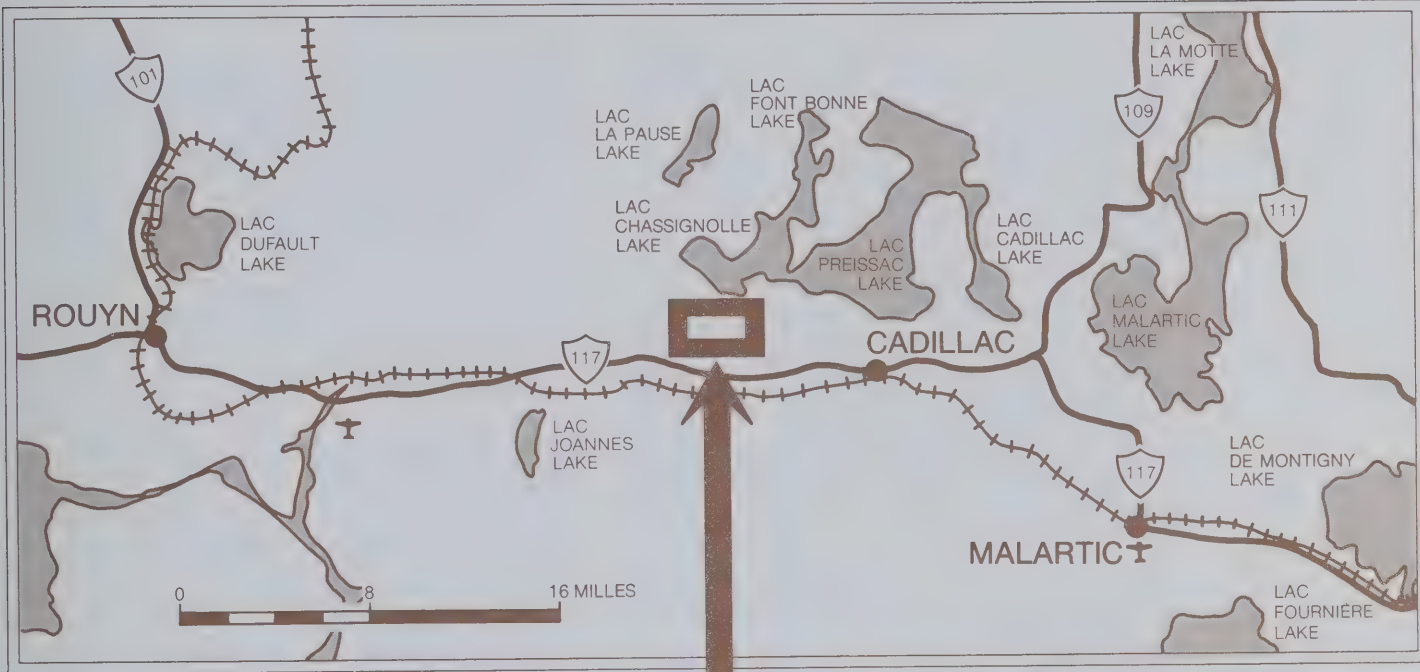
Key

X%—control position

LIMITED (Y%)—% held within Lac Group



LONG LAC MINERAL EXPLORATION LTD.



1978 REPORT

Long Lac Mineral Exploration Limited ("Lac Mineral") was incorporated in September 1967 to act as the exploration arm of the Little Long Lac Group of Companies. The year 1978 saw a continuation of exploration efforts in the Cadillac area of northwestern Quebec, the continuing development of the Mine de Bousquet Division's gold property and continuation of feasibility studies on the Silverstack/SOQUEM gold deposit several miles to the west. Other exploration activity was carried on in British Columbia and Ontario with foreign exploration in the state of Nevada, U.S.A.

Exploration expenditures for the year totalled \$1.19 million. An expenditure of \$3.93 million was made on development of the Mine de Bousquet Division's gold mine and revenue of \$615,474 was received for the sale of 2,475 oz. of gold from a 9,755 ton bulk sample milled at the East Malartic mill in July 1978.

Mine de Bousquet Division

This gold deposit was discovered by Lac Mineral geologists in 1976 and in 1977 development of an underground mine began.

Thompson Bousquet (controlled 67.6% by Lac Mineral) is entitled to a 10% advance royalty on net profit from the property, once production commences in 1979. Money paid as advance royalties will be deducted from the 40% royalty to which Thompson Bousquet is entitled once Lac Mineral has recovered all of its exploration and development expenses. Development plans on the Mine de Bousquet property call for a three compartment shaft to be sunk to a depth of 1,215 feet and extension of an exploratory decline to permit early development of the upper levels of the deposit. At the end of 1978 the shaft had reached a depth of 1,011 feet (sinking should be completed by April 1979) and the ramp a vertical depth of 325 feet below surface. At the end of the year 26,000 tons of ore estimated to contain 0.25 oz. of gold per ton had been trucked and stockpiled at the Malartic Gold Fields (Quebec) Limited's ("Malartic Gold Fields") mill near Malartic, Quebec where custom milling is expected to commence in June once the mill is fully rehabilitated and a 25,000 ton bulk ore sample from the Silverstack/SOQUEM deposit has been processed. As

the custom milling fee, Malartic Gold Fields is entitled to all milling costs, and 50¢ per ton plus 5% of all contained gold until such time as Long Lac Mineral (and Malartic Gold Fields) have recovered their respective exploration and development expenditures. A milling rate of 20-25,000 tons per month is anticipated.

Development drifting and raising coupled with development diamond drilling increased the ore reserves slightly and enabled classification into proven and probable categories.

Proven Ore Reserves

Unbroken	389,725 tons	0.205 oz/ton
		—includes 20% dilution
Broken	29,000 tons	0.240 oz/ton
Total	418,725 tons	0.208 oz/ton

Probable Ore Reserves

Reserves	418,649 tons	0.224 oz/ton
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Note: Proven and probable ore reserves should not be added together.

During 1978 surface installations were essentially completed and include an office, shops, head-frame, hoist room and ventilation air heating plant.

Silverstack/Soquem

This gold property is located west of the town of Cadillac, Quebec. The property is owned jointly by Silverstack Mines Limited (N.P.L.) 51% and SOQUEM 49%, a crown corporation of the Government of Quebec engaged in mineral exploration. Silverstack Mines Limited is controlled by Lac Mineral through the ownership of 3,860,250 shares or 67.4% of the company's outstanding shares. By agreement, Lac Mineral carries on Silverstack's business on the latter's behalf. The present agreement between Silverstack and SOQUEM permits SOQUEM to manage the property for three years after the date of a decision to proceed to production. SOQUEM agreed to permit Lac Mineral to manage the second phase exploration program that confirmed adequate near-surface reserves to justify feasibility studies for an open-pit mining operation. These studies proceeded favourably during 1978 under SOQUEM's management. The greatest difficulty encountered pertained to the metallurgy of the ore

whereby flotation and roasting was indicated as being required prior to cyanidation. To investigate fully the possibility of avoiding costly flotation and roasting the partners have agreed to carry out a 50,000 ton bulk sample test. This test will deliver 25,000 tons of near surface ore to the Malartic Gold Fields' Mill for treatment in May 1979 and 25,000 tons to the Noranda copper smelter in Rouyn for processing in April 1979.

To date, Silverstack has spent \$1,224,001 as its share of the exploration and feasibility studies.

Exploration Activities

Direct exploration expenditures during 1978 amounted to \$1.19 million versus \$1.75 million in 1977. This reduction in expenditures is attributable to the transfer of the Thompson Bousquet and Silverstack projects to Lac Mineral's mining division. Approximately half of the exploration expenditures for 1978 were directed towards our large tract of land in northwestern Quebec.

Northwestern Quebec

As a result of the discoveries at Silverstack and Thompson Bousquet in Bousquet Township, some 60,000 acres of land, underlain by the favourable Blake River Volcanics, were acquired to the west-northwest of Bousquet Township. During 1978 the areas of low potential were eliminated and a search for areas of interest continued utilizing airborne and ground geophysical surveys, reconnaissance geological mapping and basal till geochemical analysis. Preliminary results have been encouraging. The land position has been reduced to 35,000 acres for the second phase of detailed evaluation required to adequately define diamond drilling targets for 1979.

Some drilling was conducted in 1978 on the Authier's property west of and contiguous with the Silverstack/SOQUEM property. Results from the drilling were generally negative.

Geological mapping, trenching and diamond drilling were conducted on the Odyne property (formerly Calder-Bousquet). Drilling will continue during 1979. This property has numerous gold intersections in a system of quartz veins that will require a complete reappraisal of the property.

Western Canada and U.S.A.

Exploration on the Southern Pacific lease in the Carlin area revealed interesting low grade gold values and an agreement with Western States

International to explore this lease was concluded subsequent to year end.

The H.B. prospect near Tonopah, Nevada completely surrounded by staking by Houston Oils was acquired in 1978 and discussions will be held with Houston as to the possibility of a joint venture or option agreement on the property.

In British Columbia four separate groups of claims were staked for uranium and/or gold-silver deposits. These acquisitions were based on careful geological research and observation regarding recent uranium discoveries in the United States and British Columbia and are unique in that drilling this year may be undertaken at an early stage in the exploration cycle.

Elliot Lake Region

No work was undertaken on the Silvermaque property during 1978. Late in 1978 Ontario Hydro completed an agreement with Preston Mines to re-open the former Stanleigh Mine which had been operated in the early 1960's and mining had been conducted for 1,200 feet along the common boundary between Silvermaque and Stanleigh.

A limited amount of drilling was conducted on the North American Nuclear property in early 1978, however grades and widths intersected did not show improvement over previously reported values of 0.80 to 1.0 lb. per ton over widths of 8.0 to 12.0 feet. No work is currently planned for this property, although it will be maintained in good standing.

Manufacturing

Lamage Limited, a North Bay, Ontario manufacturer of high quality diamond tools for the mining and construction industries, had a lacklustre year in 1978. The year saw final development work completed on a disposable diamond drill bit and a significant increase in sales is expected in 1979. Lac Mineral obtained a controlling interest in Lamage in 1977.

Financing

In March 1978 Lac Mineral arranged a project financing of \$4,000,000 for its Thompson Bousquet Project. In February, 1979 the loan was increased to \$7,000,000 to cover increased development expenses at the mine and make available

participating company funds to cover the costs of the Silverstack bulk sample test and the acquisition of 514,025 shares of Silverstack. Shareholder companies in Lac Mineral have undertaken completion and deficiency guarantees totalling \$7,000,000 as well as requisite collateral guarantees against the loan from a Canadian chartered bank.

Ownership

As previously stated, it is Management's intention to distribute Lac Mineral's earnings to the shareholder companies in proportion to the percentage breakdown of contribution of expenditures at the time of distribution. Beginning in 1976, shares in Lac Mineral were distributed to the participating companies in recognition of Lac Mineral's expenditures for assets, such as share purchases, that cannot be written off for tax purposes. The variation between the share percentages held and the percentage of funds contributed reflects the circumstances of the purchase of these non-depreciable assets. If these assets are disposed of at a future date or if dividends are received, it is Management's intention to distribute the net proceeds according to the percentages of Lac Mineral

shares held at the time of disposal or payment. Current rates of contribution by the shareholder companies reflect an adjustment made to reflect the winding up of Lundor Mines Limited in 1978 into Lake Shore and Malartic Gold Fields.

Shareholder Company	% of Long Lac Mineral Shares Held	% Contribution to 31 Dec. 1978 & Current Rate of Contribution
Lake Shore Mines, Limited	27.322	26.316
Little Long Lac Gold Mines Limited	20.497	21.053
Willroy Mines Limited	20.497	21.053
Wright-Hargreaves Mines, Limited	10.248	10.526
East Malartic Mines Limited	10.248	10.526
Malartic Gold Fields	11.187	10.526
Total	100.00%	100.00%

It is Management's further intention to maintain the two sets of percentages at the present levels for the future.

Financial Data—Long Lac Mineral Exploration Limited

The following expenditures have been made since Long Lac Mineral Exploration was incorporated in 1967.

	1978	Lifetime Total
Exploration	\$1,121,018	\$ 5,704,890
Mine Development	3,927,782	5,318,417
Share Purchases	179,421	3,374,050
Mineral Property Purchases	65,428	375,729
TOTAL	\$5,293,649	\$14,773,086

Principal Investments (31 Dec., 1978)	No. of Shares	Market Value Dec. 31, 1978
Thompson Bousquet Mines Ltd.	1,428,301	\$4,641,978
Silverstack Mines Ltd.	2,675,525	\$4,013,288
Copper Giant Mines Ltd.	2,395,027	\$ 239,503

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